

5 of the Declaration also establishes as prima facie fact that Taniguchi does not disclose forming hydrophilic regions in a manner that increases capacitance of the cell. Therefore, Taniguchi cannot anticipate claims 1 and 8, nor any claims dependent thereon.

Paragraphs 6-9 of the Declaration describe the difference between the contact bilayer, which is described in very great detail, and the substrate. One characteristic of the substrate is having large pores for better performance. The function of the bilayer, being much finer with small pores, is to improve water flow and electrical conductivity with the electrodes. Therefore, the structure recited in claims 1 and 8 is not to be ignored.

For the foregoing reasons, reconsideration of independent claims 1 and 8 and their respective dependent claims 2, 3, 6 and 7 and 9, 10 and 13-14 is respectfully requested.

4, 5. Claims 3-7, 10-12 and 19 are rejected as obvious over Taniguchi in view of Lindstrom. Claims 3-7 and 10-12 are patentable as depending from claims 1 or 8 as described hereinbefore. Claim 19 is patentable as depending from claim 17, which is patentable as described in paragraph 6, hereinafter. Therefore, reconsideration and allowance of claims 3-7, 10-12 and 19 over the references is respectfully requested.

6. Claims 17 and 18 are rejected as obvious over Taniguchi in view of Fuglevand et al (Fuglevand). The enclosed Declaration describes in detail the disclosure of Fuglevand and concludes from the details that one skilled in the fuel cell arts would understand that the result would be hydrophobic in each layer.

Paragraph 10 of the Declaration establishes as prima facie fact that Fuglevand's hydrophobic layer 171, between hydrophobic layer 172 and the membrane assembly 172 is NOT THE SAME as claim 17, which recites a partially hydrophobic layer between a hydrophilic layer and the membrane assembly.

Paragraphs 11-15 of the Declaration describe Fuglevand's layers 171, 172 and establishes as prima facie fact that one skilled in the art would understand that Fuglevand's layers are hydrophobic.

Paragraph 16 establishes as prima facie fact that because Fuglevand's layers of differing hydrophobicity are perpendicular to the hydrophilic and hydrophobic areas that provide water and gas paths in Taniguchi, one skilled in the art would not be motivated to combine the two. (MPEP 706.02 (j) 2143, 2143.01, 2144). In paragraph 17, the Declaration establishes as prima facie fact that combining Fuglevand and Taniguchi would block the hydrophilic areas and obstruct the water flow paths of Taniguchi, which would render Taniguchi unsatisfactory for its intended purpose (MPEP 2143.01 V), and would change the principal operation of Taniguchi (MPEP 2143.02 VI). Therefore, this is an impermissible combination.

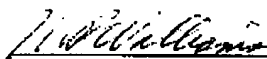
The Declaration establishes as prima facie fact in paragraph 18 that the first diffusion layer 171 of Fuglevand is adjacent the membrane 151, and placing that between Taniguchi's philic/phobic current collector 40 or 41 and the membrane assembly would provide a phobic diffusion layer between a philic/phobic diffusion layer and a membrane electrode assembly which would not meet the language of claim 17. Further, paragraph 18 establishes as prima facie fact that there is no suggestion in either reference to put Fuglevand's layer (171) on the side of Taniguchi's diffusion layer which is opposite to the membrane, and even so it would not provide the hydrophilic substrate required in claim 17. For all the foregoing reasons, reconsideration and allowance of claims 17 and 18 is respectfully requested.

7. In reply to the Response to Arguments: paragraph 1 has been put to rest by paragraphs 6-9 of the accompanying Declaration; paragraph 2 relates only to claims dependent from allowable claims; and paragraph 3 does not take into account column 2, line 7 of the present application which refers to a water transport plate as being porous.

Paragraph 19 of the accompanying Declaration establishes as prima facie fact that the term "water transport plate" is used in the art only to identify a plate which is porous, at least partially hydrophilic, and utilized to permit water to flow through plane, within pores, between electrode supports which contact one surface of the plates and water channels which are in or near opposite surfaces of the plates.

To save the Examiner considerable time when this case is taken up, a short phone call is recommended should any issue herein still be unresolved. A few minutes on the phone could clarify a point, or result in a supplemental response which would further limit or dispose of issues. A five minute phone call can save the Examiner a lot of work. Such a phone call would be deeply appreciated.

Respectfully submitted,



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